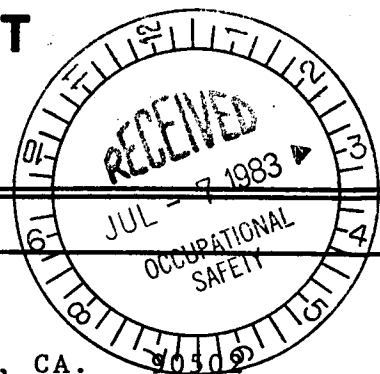


MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 3/82



Section I

MANUFACTURER'S NAME BOSTIK WEST, DIVISION OF EMHART CORPORATION

STREET ADDRESS 20846 S. NORMANDIE AVE. CITY, STATE, AND ZIP CODE TORRANCE, CA.

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS EPOXY
(Flat Red Epoxy, DPM-110, ~~2138~~ 2138)

TRADE NAME BOSTIK

MANUFACTURERS CODE IDENTIFICATION 463-3-3

Catalyst: CA-118

Mix Ratio: 3 parts 463-3-3(Base) to
1 part CA-118 by volume

Section II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS NO.	PERCENT (Wt.)	TLV		LEL	VAPOR PRESSURE
			PPM	mg/M ³		
463-3-3(Base Only)						
Cellosolve Acetate	111-15-9	10-15	100		1.7	2.0
Methyl Ethyl Ketone	78-93-3	10-15	200		1.8	70.0
Toluene	108-88-3	<5.0	200		1.2	22.0
Xylene	1330-20-7	<5.0	100		1.0	7.0
Butyl Acetate	123-86-4	<5.0	150		1.7	8.0
Butyl Cellosolve	111-76-2	<5.0	50		1.1	1.0
Butyl Alcohol	71-36-3	<1.0	100		1.7	4.0
Methyl Isobutyl Ketone	108-10-1	<1.0	100		1.4	15.0
Chromate Compounds:						
Reported as Pb	17758-97-6	<2.0	---	*0.05	---	---
Reported as Cr	13765-19-0	<1.0	---	*0.05	---	---
*OSHA, 8 HR., TWA						

Section III - PHYSICAL DATA

BOILING RANGE 176-340° F.

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE
BY VOLUME 60%

WEIGHT PER
GALLON 10.68 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red Label, Flammable

(Min)
FLASH POINT 23° F. Tag Closed Cup LEL 1.0

EXTINGUISHING MEDIA

Exclude air-Use foam, CO₂, steam, water fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between
upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel.

Section V – HEALTH HAZARD DATA

OLD LIMIT VALUE : See Section II

OF OVEREXPOSURE : Headache, nausea, dizziness. Breathing vapor will be
ating to nose, throat and eyes.

ICY AND FIRST AID PROCEDURES : Skin Exposure: Wash affected area with soap & water.
xposure: Flush with water for at least 15 minutes, consult physician.
tion: Consult physician immediately.
ation: Remove victim to fresh air, consult physician.

Section VI – REACTIVITY DATA

☐ UNSTABLE ☒ STABLE

CONDITIONS TO AVOID : Storage at high temperatures.
Strong oxidizing agents. Sparks and open flame.

ABILITY (Materials to avoid)

US DECOMPOSITION PRODUCTS

mbustion CO, CO₂, Aldehydes and other organics, lead fumes, oxides of
gen.

US POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

NS TO AVOID

Section VII – SPILL OR LEAK PROCEDURES

BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes
area. Prevent liquid from entering sewers, water sources, or low areas.
unnecessary personnel away. Shut off source, if possible to do so without
d. Contain spilled liquid with sawdust, sand or oil absorbing compound.
DISPOSAL METHOD Wash area with detergent & water. Consult disposal expert & ensure
rmity with local regulations.

Section VIII – SPECIAL PROTECTION INFORMATION

RY PROTECTION: Use approved respiratory protection such as an air-supplied
if used in non ventilated area.
nical: Explosion-proof ventilation equipment. No smoking or open lights.

ON : Face velocity 60 fpm in confined area.

EGLOVES : Chemically resistant gloves.

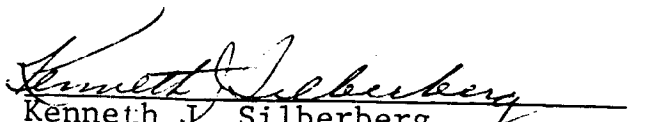
CTION : Chemical splash goggles or face shield.

TECTIVE EQUIPMENT : Eye bath & safety shower.

Section IX – SPECIAL PRECAUTIONS

NS TO BE TAKEN IN HANDLING AND STORING : Keep containers closed when not in use. Do not
e or store near flame, heat or strong oxidants. Adequate ventilation
ed. Containers of this product may be hazardous when emptied -these
CAUTIONS containers retain product residues (vapor, liquid, etc.).

ndling equipment should be electrically grounded. Treat as a very
able liquid.

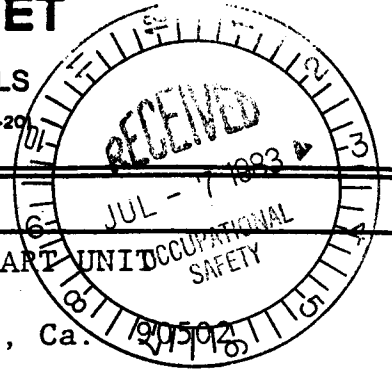

Kenneth J. Silberberg
Technical Administrative Manager

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-201)

DATE OF PREP 10-81



Section I

MANUFACTURER'S NAME BOSTIK WEST, DIV. OF USM CORPORATION, AN EMHART UNIT

STREET ADDRESS 20846 So. Normandie Ave. CITY, STATE, AND ZIP CODE Torrance, Ca. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS AMINE ABDUCT.

TRADE NAME BOSTIK

MANUFACTURERS CODE IDENTIFICATION CA-118
Catalyst for: 453-3-Series, 463-3-Series
463-3-8, 454-3-Series. Mix Ratio: 3 parts
Base to 1 part CA-118 by volume.

Section II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS No.	PERCENT (WT.)	TLV		LEL	VAPOR PRESSURE mm Hg.
			PPM	mg/M ³		
CA-118 Epoxy Catalyst						
Methyl ethyl ketone	78-93-3	25-30	200		1.8	70.0
Butyl alcohol	71-36-3	20-25	100		1.7	4.0
Butyl acetate	123-86-4	20-25	150		1.7	8.0
Butyl cellosolve	111-76-2	10-15	50		1.1	1.0
Toluene	108-88-3	<5.0	200		1.2	22.0
Diethylenetriamine(DETA)	111-40-0	Trace	1.0		1.4	<1.0

Section III - PHYSICAL DATA

BOILING RANGE 176-340° F.

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE
BY VOLUME 87%

WEIGHT PER
GALLON 7.0 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red Label, Flammable

(Min)
FLASH POINT 23° F. Tag Closed Cup LEL 1.1

EXTINGUISHING MEDIA Exclude air - Use foam, CO₂, steam, water fog, dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect personnel.

Section V – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.

EMERGENCY AND FIRST AID PROCEDURES : Skin Exposure: Wash affected area with soap and water. Eye Exposure: Flush with water for at least 15 minutes, consult physician. Ingestion: Consult physician immediately. Inhalation: Remove victim to fresh air, consult physician.

Section VI – REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE

INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents. CONDITIONS TO AVOID Storage at high temperatures. Sparks & open flame.

HAZARDOUS DECOMPOSITION PRODUCTS

On combustion CO, CO₂, Aldehydes and other organics, oxides of nitrogen.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand or oil absorbing compound. Wash area with detergent & water. Consult disposal expert and ensure conformity with local regulations.

Section VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non ventilated area. Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION : Face velocity > 60fpm in confined area.

PROTECTIVE GLOVES Chemically resistant gloves.

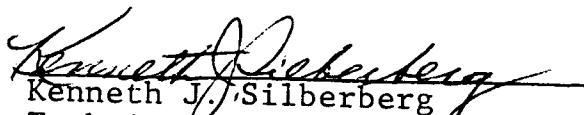
EYE PROTECTION Chemical splash goggles or face shield.

OTHER PROTECTIVE EQUIPMENT Eye bath & Safety shower.

Section IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING : Keep containers closed when not in use. Do Not handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied -these OTHER PRECAUTIONS containers retain product residues (vapor, liquid, etc.).

All handling equipment should be electrically grounded. Treat as a very flammable liquid.


Kenneth J. Silberberg
Technical Administrative Manager